# Hospital Data Analysis Project – Professional Description

## Project Overview

The Hospital Data Analysis Project is designed to provide insightful analytics on hospital operations, patient demographics, disease trends, insurance claims, and overall hospital performance. Using Power BI, this project visualizes critical healthcare metrics, helping hospital administrators, medical professionals, and stakeholders make data-driven decisions.

## Key Objectives

- Analyze Disease Trends: Identify fast-increasing diseases like Asthma, Appendicitis, and COVID-19, along with their occurrence rates.

- Patient Demographics: Categorize patients based on age group, gender, and diagnosis.

- Hospital Resource Management: Assess the availability of total beds (10K), department-wise bed allocation, and patient distribution.

- Doctor Performance Evaluation: Rank top-performing doctors based on patient count and service quality.

- Financial Insights: Evaluate payment modes (Card, Cash, Insurance), total insurance approvals (3.38K), and rejections (3.27K).

- Treatment Efficiency: Measure average admit time (290 days), average treatment cost (252.53K), and admit days by diagnosis.

- Satisfaction Analysis: Determine department-wise patient satisfaction scores, with an overall hospital rating of 3.01.

## Data Insights & Key Findings

- Fastest-growing diseases: Asthma (1.33K cases), Appendicitis (1.29K cases), and COVID-19 (1.25K cases).

- Department-wise bed count: ICU (1.49K), Emergency (1.44K), Neurology (1.42K), Pediatrics (1.42K), Cardiology (1.42K), Orthopedics (1.40K), General Surgery (1.38K).

- Highest patient satisfaction: Emergency (3.05), Pediatrics (3.03), Cardiology (3.02).

- Top payment methods: Card (33.48%), Cash (33.3%), Insurance (33.22%).

- Hospital branches mapped: Locations provided via Bing Maps links.

## Technology Used
- Power BI for data visualization.

- Data filtering by year (2022-2025).

- Interactive dashboards for real-time analytics.